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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,054

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Michael Gerlach

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EXAMINER

NGUYEN, TU MINH

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

11/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,054	Applicant(s) GERLACH, MICHAEL	
	Examiner TU M. NGUYEN	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 14-18 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060614</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. An Applicant's Preliminary Amendment filed on June 14, 2006 has been entered. Claims 1-10 have been canceled. Claims 11-18 have been added and are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 11 and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Arora et al. (U.S. Patent 5,709,080).**

Re claims 11 and 18, as shown in Figures 1-3, Arora et al. disclose a method and a device for operating a metering valve (20) which sets a flow rate of a reagent to be introduced into an exhaust gas area (11) of an internal combustion engine (12), the method comprising:

- providing a diagnosis (the routine shown in Figure 3) of the metering valve including an analysis of a measure of a flow rate on the basis of a pressure difference during a diagnosis time;
- after an occurrence of a diagnosis start signal (step 305), bringing the reagent to a predefined diagnosis start pressure (step 310) while the metering valve is kept closed;
- then setting the metering valve at a predefined flow rate (predefined flow rate is set to zero because the metering valve is still kept closed); and

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- analyzing (steps 320 and 325) the pressure difference occurring during the diagnosis time.

Re claim 14, the method of Arora et al. further comprises:

- fixedly predefining the diagnosis time; and
- supplying a warning signal (in step 335) when the pressure difference exceeds a predefined pressure difference limit during the diagnosis time (step 325 with Yes answer).

Re claim 15, the method of Arora et al. further comprises providing an adaptation of a metering valve signal delivered by a metering control unit to the metering valve during metering operation as a function of the ascertained measure for the flow rate.

Re claim 16, the method of Arora et al. further comprises providing an adaptation of a metering valve signal delivered by a metering control unit to the metering valve during metering operation as a function of the pressure difference.

Re claim 17, the method of Arora et al. further comprises starting the diagnosis with a first diagnosis start signal supplied by an internal combustion engine control unit (see Figure 2).

4. Claims 11 and 18 are further rejected under 35 U.S.C. 102(b) as being clearly anticipated by Weigl (U.S. Patent 6,209,315).

As shown in Figure 1, Weigl discloses a method and a device for operating a metering valve (14) which sets a flow rate of a reagent to be introduced into an exhaust gas area (15) of an internal combustion engine (lines 65-66 of column 5), and as indicated on lines 1-10 of column 7, the method comprising:

- providing a diagnosis of the metering valve including an analysis of a measure of a flow rate on the basis of a pressure difference during a diagnosis time;

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- after an occurrence of a diagnosis start signal, bringing the reagent to a predefined diagnosis start pressure while the metering valve is kept closed;
- then setting the metering valve at a predefined flow rate (predefined flow rate is set to zero because the metering valve is still kept closed); and
- analyzing the pressure difference occurring during the diagnosis time.

Allowable Subject Matter

5. Claims 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

6. The IDS (PTO-1449) filed on June 14, 2006 has been considered. An initialized copy is attached hereto.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of two patents and one patent application: Hirooka et al. (U.S. Patent 6,918,245), Wills et al. (U.S. Patent 7,067,319), and Miyake (U.S. Patent Application 2009/0113875) further disclose a state of the art.

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Communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tu M. Nguyen/

TMN

Tu M. Nguyen

November 8, 2009

Primary Examiner

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